

Scenes in Lisbon During the Revolution That Made Portugal a Republic

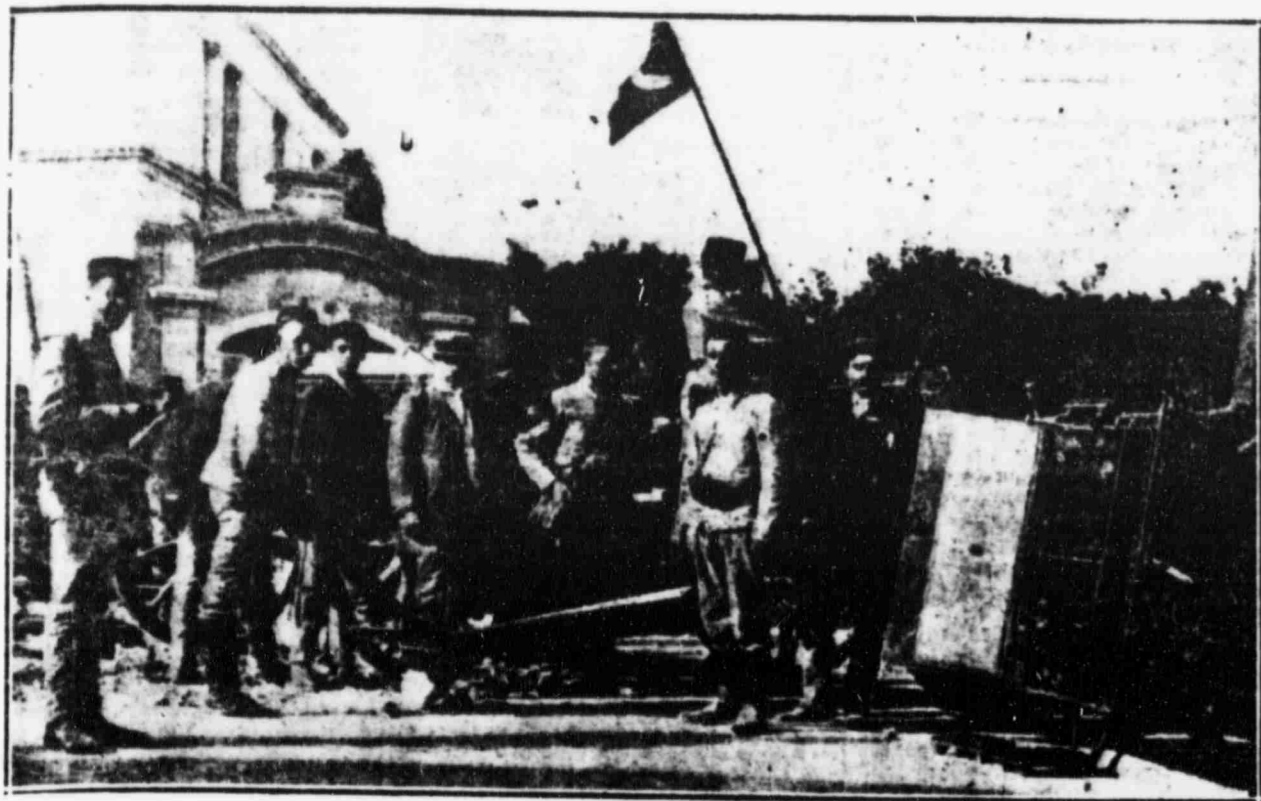


Photo by Harlingue, Paris.

ARTILLERY IN ACTION IN A STREET OF LISBON.



Photo by Harlingue, Paris.

A PARTY OF THE REVOLUTIONISTS.

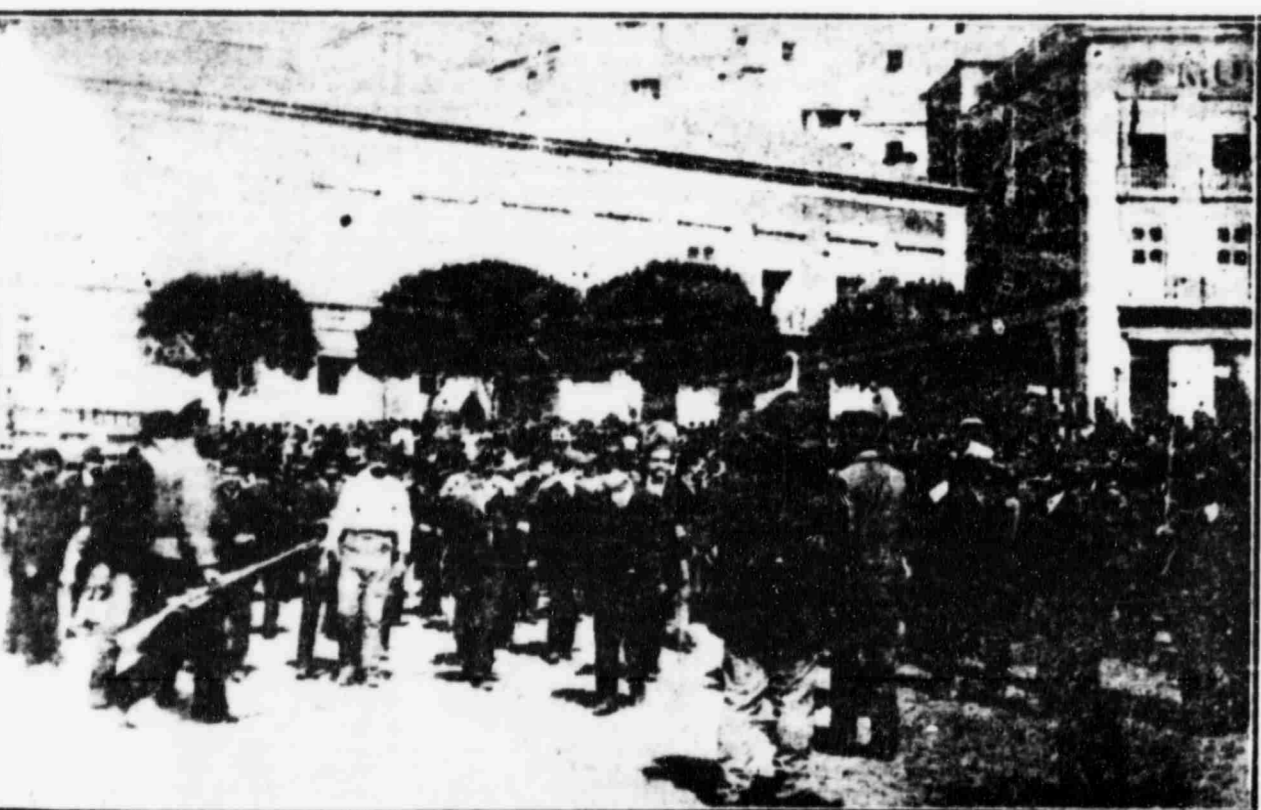


Photo by Harlingue, Paris.

CIVILIANS ARMING THEMSELVES AT LISBON.

The republican propaganda had been very active in Portugal before the final overthrow of the monarchy. Thousands upon thousands of cards the size of post-cards were spread all over the country bearing an effigy of the republic and



THE NEW PORTUGUESE FLAG

briefly recounting the shortcomings of the Braganza rule as follows:

The royal family, not including Queen Maria Pia (King Manuel's grandmother), has borrowed from the nation \$2,351,800. King Carlos alone borrowed \$2,100,550. They owe the (Credito Predial) \$2,550,000 more.

Portugal, with less than 5,000,000 inhabitants, owes \$485,000,000. Brazil, with 22,000,000 inhabitants, owes \$525,000,000.

The royal family costs us \$667,000 annually.

The Brazilian President costs Brazil \$60,000 annually.

Our budget shows an annual deficit of from \$6,000,000 to \$8,000,000.

Brazil's budget has a surplus of over \$6,000,000.

Public services cost in Switzerland \$1.20 an inhabitant; in England, \$2.10; in Portugal, \$30. They are worse in Portugal.

Citizens, reflect on this!

Affraid He Might Fall.

From the Atlanta Constitution.

When the Wright camp at Montgomery, Ala., broke up Brooks fled to the Pullman ticket office for the purpose of securing a reservation to Dayton. "Give me a lower berth," requested the aviator, who has soared to a height of 7,000 feet.

"Haven't any left," responded the man in the cage. "The best I have is an upper."

"Not for mine," ventured the birdman, as he turned to explain his position to a friend who accompanied him.

"You see," he said, "an upper berth is one too many for me. There's too much risk. Easiest thing in the world to fall out."

Brooks refused the accommodations of the local agent and risked the chance of getting straightened out in Birmingham.

Where His Memory Failed.

From the Youth's Companion.

Voltaire's plaint, "The necessity of saying something, the perplexity of having nothing to say," might have found an echo in an audience addressed for the third time in one service by an old gentleman famed for his readiness to speak.

"I was thinking while sitting here of the words of the poet," said he, "I can't remember the words and the name of the poet has gone from me."



Photo by Harlingue, Paris.

PLACE S/N PEDRO, LISBON. SOLDIERS AND CIVILIANS UNDER ARMS.

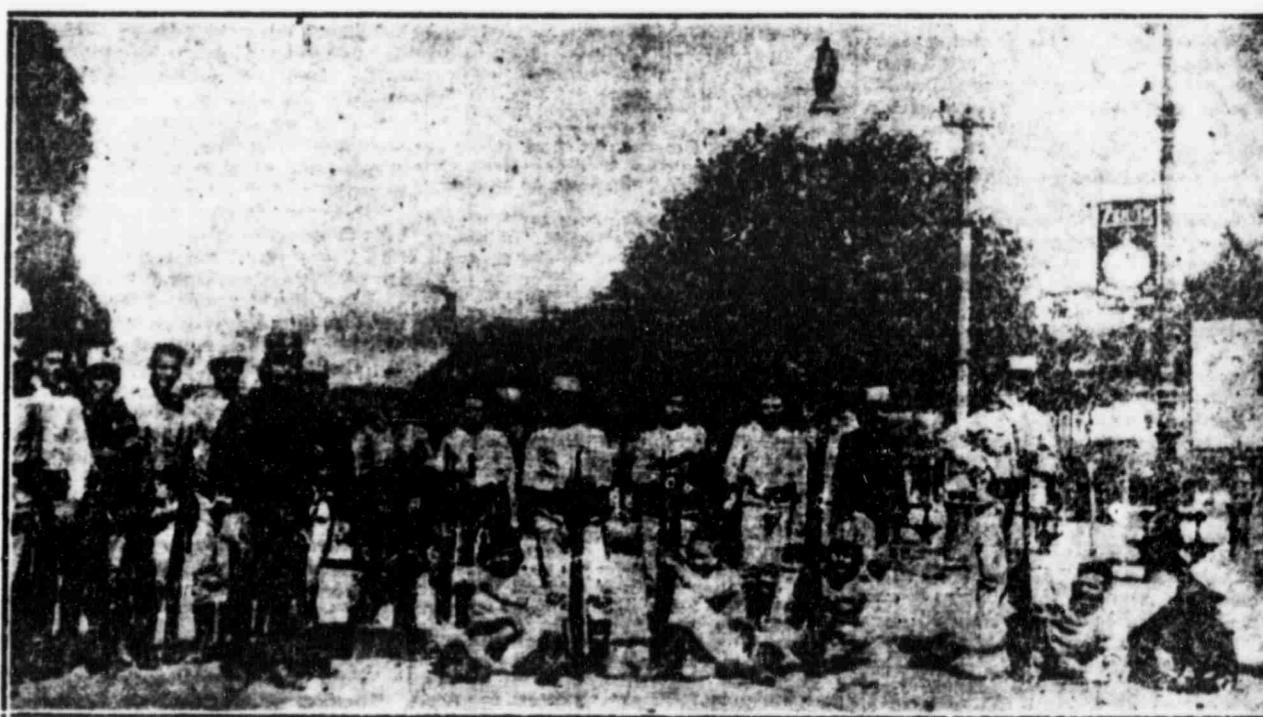


Photo by Harlingue, Paris.

SOLDIERS BUILDING A BARRICADE.



ARMED CIVILIANS MARCHING TO RELIEVE THE REGULAR TROOPS, WHO HAD BEEN ON DUTY FOR A WEEK.

FATHER OF THE AUTOMOBILE

HOW DAIMLER WORKED OUT HIS IDEAS IN SECRET.

His Workshop Once Raided by Suspicious German Police. A Successful Model Finally Worked Out Twenty-five Years Ago Honors Paid to His Memory.

Counting Gottlieb Daimler as the founder of the automobile industry, a writer in *Shop Notes Quarterly* says it seems strange that less has been written about this "father of the automobile" than about hundreds of other men who have done less in developing motor cars. Daimler, who was born in Germany in 1826, was working in the Otto Engine Works at Heilbronn when a slight incident gave him the idea of using a high speed engine in propelling vehicles. Daimler and Wilhelm Maybach, another engineer, were asked to produce a small model of a motor car to be given as a toy to the son of the inventor.

Constructing the miniature motor car, Daimler and Maybach made an innovation instead of employing a slide valve for the purpose of the cylinder. The cylinder was placed in a small opening at its side through which a portion of the mixture of gas and air escaped and was set on fire by an open flame.

After many discouraging experiences, the motor was at last pronounced improved to the extent of being suitable for installation on a small vehicle which was really a bicycle.

The first trials with this machine were made under cover of darkness in open squares on the outskirts of the city where the inventor was not likely to be interfered with by the curious. Outside of some difficulties in negotiating curves these tests were quite satisfactory.

This vehicle, built and tried in 1885, may as a matter of fact be considered the forerunner of the motorcycle of later days, although because of lack of confidence in their machine the inventors equipped it with four wheels.

When the success of these tests became public Daimler was induced to place one of his new motors in a small boat which took part in 1885 in a series of rowing races in Frankfurt.

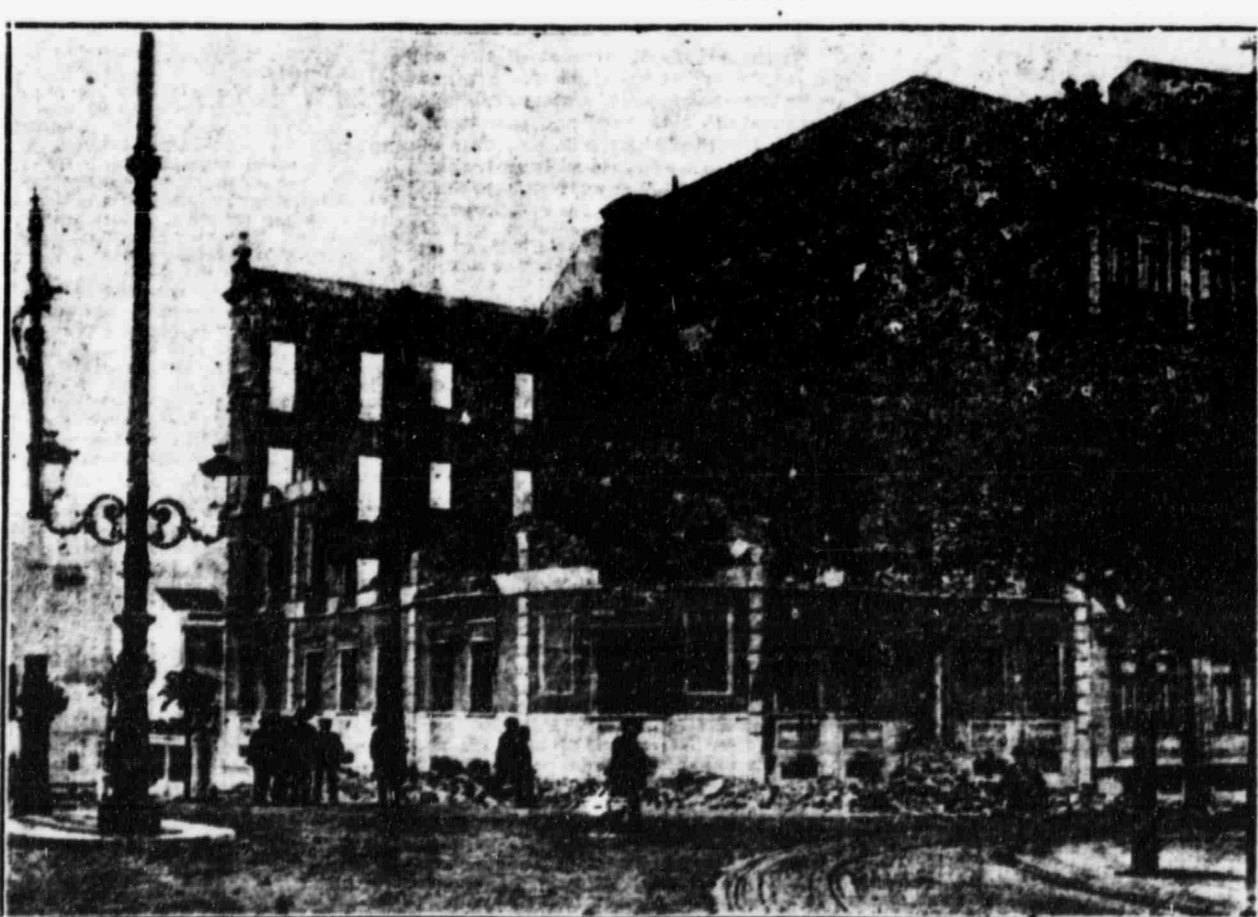
While the general public displayed friendly interest in this motor boat the inventors were compelled on account of the then existing police regulations to temporarily abandon further efforts in this direction and to confine their experiments to the development of the automobile for use on the public highways.

The experiments with the new motor which were made at the very place in Cannstatt where now stands the Daimler monument, were conducted for various reasons with extreme secrecy.

At that time, according to the brothers Daimler, the dangers of gasoline were vastly overrated. Whereas reckless chauffeurs to-day frequently extinguish a lighted cigar by immersion in gasoline at that time only one weary of life would have approached the mysterious fluid within half a mile while smoking.

Cannstatt was then quite a small place, and it was of course impossible to hide the fact that Daimler senior and Herr Maybach were conducting mysterious experiments night after night behind closed doors and with barred and heavily screened windows. The neighbors talked about it until the authorities felt compelled to take action.

One night—and this was a night when everything seemed to go amiss with the experimenters—when all the formulas failed to work and when nothing in the



RUINS OF A ROYALIST'S HOUSE IN THE AVENUE DA LIBERDADE, LISBON. THE HOUSE WAS SHELLED BY THE REVOLUTIONISTS BECAUSE THE OWNER DECLINED TO LOWER THE ROYAL STANDARD.

plans and drawings seemed to fit with anything else, the door was suddenly forced and the flash of a blind lantern glared through the opening, followed by the "eye of the law" and a number of legal minions.

When instead of the expected printing press and combers' apparatus only the model of an explosive motor was found

the sleuths withdrew, and the next day the burgomaster of Cannstatt personally apologized to the studious mechanics. The experiments were thereupon continued without further molestation.

In later experiments applying the Daimler motor to the propulsion of a boat, the same precaution was observed. The motor, carefully packed, was carried

down to the Neckar each morning at 2:30 by a workman sworn to secrecy. At the first sign of danger from human observation, a landing was made; the motor was detached, wrapped in a cloth and carried home.

The experiments with the motor boat were successful from the start. As showing the universal fear of gasoline at that

time—they call it benzine in Germany—it is curious to note that it was thought necessary, when the motor boats were first put into use, to string wire on porcelain knobs along the rail to give them the appearance of being operated electrically.

Daimler was convinced that with a suitable motor any kind of vehicle could be operated by power, and he set himself in his endeavor to put his idea into practical shape. After various trials he completed in the same year 1885 a motor car which closely resembled in its general arrangement the automobile of to-day.

A single cylinder vertical engine of the horsepower was installed in the center of the car. The driving mechanism, consisting of sliding gears with four speeds, was connected with the motor by a friction clutch coupling. The car was equipped with a differential gear and developed twelve miles an hour.

One was taken to Paris, where just at that time De Dion and Serpollet were demonstrating their steam propelled cars. The gasoline car was at once recognized as being superior in many respects, although without springs and pneumatic tires, and Daimler had no difficulty in arranging for a license for building his cars in Paris. This license was purchased by Mme. Sarasin, who later married M. Lovaasser, founder of the firm of Panhard & Lovaasser.

These successes, however, were followed by a period of comparative inactivity. Instead of following the lines of these first cars Daimler lost valuable time working on entirely different principles. His attempts to substitute a belt drive for the gears previously used, and other similar experiments, only gave negative results, and the time lost in this manner could hardly be compensated for by the redoubled efforts of the following years.

The French licensees, on the other hand, developed the Daimler inventions rapidly. They placed their motor in front and finally Daimler himself, convinced of the advantage of these changes adopted them. From that time on his progress was rapid. He also gave much attention to gasoline propelled railway cars, operating a small car with nine passengers as early as 1887.

In view of erroneous opinions held in some quarters as to the invention of the motor car and as showing beyond cavil the priority of Daimler's invention his fundamental German letters patent may be cited. These are No. 28,022, of date December 16, 1883, and relate to his motor especially designed and invented for

motor vehicles. They may be said to form the elementary basis of all self-propelled vehicles as prior to their date no really practical high speed motor was known. Daimler's second patent, No. 30,423, August 19, 1885, covers a "bicycle" with gas or petroleum as a prime mover, motor cycle, motor sled, motor car, etc., inclusive of their motors, and even motor propelled air-ships in 1889. In this the gas or petroleum motor is arranged under the two axles of a single track cycle or sleds frame.

Daimler's memory was honored in a fitting manner when in 1902 the Württemberg Society of Engineers unveiled in the presence of the descendants of the inventor, the ministers of state and many prominent guests, a monument placed in front of the Daimler residence in Cannstatt.

Dogs of St. Bernard.

From the London Globe.

Although the tunnels which now connect Switzerland with Italy have greatly decreased the importance of the St. Bernard and other passes, especially during the months of snow, it is still deemed advisable to employ St. Bernard dogs. It is no longer customary, however, to send out the dogs alone with baskets of food and drink; a man also accompanies them.

These dogs are not really of the famous old St. Bernard breed. That originated in the fourteenth century through a cross between a shepherd dog from Wales and a Scandinavian dog whose parents were a Great Dane and a German mastiff. The last pure descendant of this tribe was buried under an Englishman in 1810. Fortunately there were found subsequently at Martigny and on the Simplon Pass a few dogs which by crossing with males from Wales yielded the modern St. Bernard dog, which is physically even stronger than his medieval namesake and shrewd most of his traits.

Indians as Diplomats.

From the Milwaukee Sentinel.

I have often wondered why the diplomatic corps of this country did not employ Indians, said W. J. Kerzhaw in an address on "The American Indian" at the first fall meeting of the Wisconsin Archaeological Society.

They possess the one supreme quality of diplomats—ability to control their tongue. In addition to this the American Indian is an orator of no mean quality. He is a good worker and it will be found that as soon as the white man stops treating the Indian both as individuals and tribes at the same time his ambition will be increased.